



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,981	04/21/2000	Brett D. Riggs	PACACC.001CP1	6469

20995 7590 11/24/2003

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER

GRAHAM, ANDREW R

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/552,981

Applicant(s)

RIGGS, BRETT D.

Examiner

Andrew Graham

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on April 21, 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2644

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on September 15, 2003 was filed after the mailing date of the application on April 21, 2000. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Drawings

2. New corrected drawings are required in this application because of the reasons listed on the attached Draftsperson's Review, form PTO-948. Applicant is advised to employ the services of a patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: S1, S2, V_{SS}, U1, U2, R6, R7, and R8. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. If these reference signs are present in the currently

Art Unit: 2644

submitted specification, the applicant is simply requested to provide the page and line numbers where they are located. The applicant's assistance is particularly requested in correcting all discrepancies in the drawings that are of a similar nature, but not specifically listed above. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: On page 18, line 8, the "matching" state is referred to as "252", where as in the corresponding drawing, Figure 5B, this state is labeled as "256" and an "await control signal" state is labeled as "252".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 4-7 and 17** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2644

Claim 4 recites the limitation "the replacement stereo" in the fourth and fifth line of the claim. There is insufficient antecedent basis for this limitation in the claim. The applicant is requested to amend this phrasing to read "the replacement stereo receiver" such that all references to said device are consistent throughout the claims.

Claims 5-7 are rejected due to their respective dependencies upon Claim 4.

Regarding **Claim 7**, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 17 includes the limitation "a local control signal from an existing local stereo control button positioned within the vehicle". The parent claim, Claim 15, includes the limitation "the at least one remote signal from a person in the vehicle". The scope of "from a person" and "from an existing local stereo control" are conflicting, which renders such a limitation in Claim 17 indefinite. The applicant is requested to amend or otherwise clarify the claim language used in these claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

Art Unit: 2644

the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1, 8, 15, and 16** are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the applicant's admitted prior art.

In the applicant's disclosure, it is disclosed that some replacement stereos were available with voice recognition features (page 3, lines 30-32). The applicant also discloses that known voice recognition, or voice active control, systems were already implemented in vehicles such as the Jaguar 2000 S Type (page 3, lines 23-27). The circuitry that conducts the voice recognition features in the applicant's admitted prior art regarding replacement stereo receiver systems reads on "voice control interface" and the inherent functioning of the circuitry reads on "receives at least one voice command and produces at least one output signal". The replacement stereo receivers themselves read on "a replacement stereo receiver installed in a vehicle to replace an originally installed stereo receiver". The applicant cites that the voice recognition system in the factory installed system is able to change the lights of the vehicle, lock a door, and alter the volume of the stereo (page 3, lines 24-27). The "voice recognition features" of the cited replacement stereos in view of these listed capabilities would inherently, or at least obviously, include the ability to alter at least one aspect of the replacement stereo receiver, which reads on

Art Unit: 2644

"so that the at least one voice command can be used to control the operation of the replacement stereo receiver".

Regarding **Claim 8**, please refer to the like teachings of Claim 1, while also noting the well-known concept of installing a replacement stereo receiver for a vehicle in the vehicle.

Regarding **Claim 15**, please refer to the like teachings of Claims 1 and 8, noting that the use of a voice controlled system in a vehicle is well-known in the art to respond to voice commands from persons within the vehicle.

Regarding **Claim 16**, voice recognition features are specifically noted to be available with replacement stereo receivers by the applicant's admitted prior art, the operation of these features reading on "the at least one remote signal comprises a voice command produced by the person in the vehicle" (page 3, lines 23-32).

6. **Claims 2-7, 9-14, and 19-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Bush et al (USPN 6397186). Hereafter, "Bush et al" will simply be referred to as "Bush".

As detailed above, the applicant discloses that replacement stereo receivers have been provided with handheld, wireless remote controls (page 3, lines 1-21). Such a control option enables the occupants of a vehicle to control the replacement receiver from a position remote in regards to the location to the receiver. The

Art Unit: 2644

applicant also states that some replacement stereo receivers were known to already include voice recognition features.

However, the applicant's admitted prior art does not specify:

- that the voice command interface sends the remote control signal wirelessly to the replacement stereo receiver

Bush teaches a voice-controlled, hands-free universal remote control for use with various electrical appliances. To promote portability, the device of Bush may be battery operated, and in order to promote a reduced power consumption, the device is also able to enter a sleep mode when no input voice commands are detected (col. 7, lines 7-15). The device comprises an input microphone (20), a speech recognition circuit (50), and light emitting diodes (80) for conducting the main function of the device (col. 7, lines 22-32). The control data emitted by the diodes (80) is derived from the recognition of input voice commands (col. 8, lines 6-16). Being a 'universal' remote control, the device is capable of interfacing with virtually any device that is amenable to remote control through the use of either preprogrammed control codes, or the ability to learn the particular control codes for a respective device (col. 30, lines 39-49). An infrared receiver (71) and the at least one infrared emitting diode (80) enables the device to both receive wireless signals from the original remote control device as well as emit its own wireless signal to the appropriate appliance (col. 8, lines 39-62). As the output of the device is based on an input, recognized voice command, the operation of the components of the device of Bush read on "the

Art Unit: 2644

voice control interface device receives at least one voice command and outputs at least one wireless signal to a replacement stereo receiver corresponding to the at least one voice command" (col. 8, lines 11-38).

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to utilize the voice controlled remote control device of Bush with a remote controlled replacement stereo receiver of the applicant's admitted prior art. The motivation behind such a modification would have been that the device of Bush would have provided the replacement receiver with voice controlled capabilities in a simple, programmed or pre-programmed manner without the need for physically wiring the device to the receiver or a separate source of electrical power. The device of Bush would have also been desirable because it operates on an efficiency oriented, voice command menu scheme and would have also enabled the original remote controller's signals to be specifically duplicated and associated with a voice command. The power saving function would have been desirable in order to reduce electrical energy consumption, as opposed to the voice recognition and other control systems of the applicant's admitted prior art that may or may not have included such attributes. Ultimately, the portability of the device would have enabled a user to control other devices that are not located within the vehicle or in a vehicular environment.

Regarding **Claim 3**, the device of Bush includes the ability to learn the infrared signal of the respective remote controls of various

Art Unit: 2644

devices, a flowchart of the operation of which can be seen in Figures 14a-14b (col. 30, lines 46-49). The flowchart includes a step for receiving the infrared or other wireless signal from an original or otherwise capable, separate controller through the infrared receiver (71) (col. 39, lines 14-19). This part of the learning procedure reads on "the voice control interface device receives a first wireless signal from a handheld remote control upon a user depressing a first function key on the handheld wireless remote control to change a first function of the replacement stereo receiver". After the received infrared code is stored and associated with a voice command, the device of Bush is then able to later transmit the learned code based upon the reception and recognition of the corresponding voice command (col. 39, lines 44-48). This aspect of the device's operation reads on "the voice control interface produces a signal corresponding to the first wireless signal in response to a user speaking a first voice command".

Regarding **Claim 4**, the "learning" process of the device of Bush, which enables the infrared codes of other controllers to be duplicated and associated with voice commands involves storing the codes of other controllers in a read/write memory (72) (col. 39, lines 28-33). The user specific voice commands are also stored for the device in a read/write memory (54) (col. 40, lines 7-14). These aspects and respective operations of the "learning" and "training" processes read on "the voice control interface device includes a memory and is programmable so as to store wireless signals corresponding to the at

Art Unit: 2644

least one voice command". Bush specifically teaches that a successfully learned and stored infrared signal may be later transmitted by the device upon reception and recognition of the corresponding voice command, which reads on "such that subsequent speaking of the at least one voice command results in a corresponding wireless signal being sent to the replacement stereo".

Regarding **Claim 5**, Bush discloses that pressing a combination of buttons on the device may be used to effectively "erase" the read/write memory so that difference command data may be stored in the memory (54) (col. 41, lines 39-49). This "erasure" is effectively performed by resetting the address pointer for the memory (54) to zero so that subsequent write operations to the memory overwrite the previously stored data (col. 41, lines 42-46). This function and the involved components reads on "the memory is rewritable and the voice control interface device further comprises a switching device to enable the user to selectively reprogram voice commands".

Regarding **Claim 6**, as noted in regards to Claim 1, the device of Bush includes an infrared receiver (71) and at least one infrared emitting diode (80) that enables it to both receive wireless signals from the original remote control device as well as emit its own wireless signal to the appropriate appliance (col. 8, lines 39-62). These components, and their respective functions read on "the voice interface device includes a wireless receiver and a wireless transmitter". The remaining features listed in the Claim are

Art Unit: 2644

performed by these components (71,80), or have been addressed previously in regards to Claims 1-5.

Regarding **Claim 7**, the applicant's admitted prior art notes that the voice controlled interface of the Jaguar 2000 S Type includes the abilities of locking doors and controlling headlights (page 3, lines 23-27). The applicant's admitted prior also notes that some replacement stereos are equipped with voice recognition features (page 3, lines 30-32). As discussed previously, the device of Bush is able to control a wide variety of appliances including non-entertainment appliances (col. 7, lines 1-7). This wide range of application of the invention of Bush in view of the prior known features that are controllable within a vehicle reads on "outputs to control at least one aspect of a vehicle such as turning on a light".

Regarding **Claim 9**, please refer to the like teachings of Claim 2.

Regarding **Claim 10**, please refer to the like teachings of Claim 3.

Regarding **Claim 11**, please refer to the like teachings of Claim 4.

Regarding **Claim 12**, please refer to the like teachings of Claim 5.

Regarding **Claim 13**, please refer to the like teachings of Claim 6.

Regarding **Claim 14**, please refer to the like teachings of Claim 7.

Regarding **Claim 19**, please refer to the like teachings of Claim 2.

Regarding **Claim 20**, please refer to the like teachings of Claim 3.

Regarding **Claim 21**, please refer to the like teachings of Claim 4.

Regarding **Claim 22**, please refer to the like teachings of Claim 4.

Regarding **Claim 23**, please refer to the like teachings of Claim 6.

Art Unit: 2644

7. **Claims 17 and 18** are rejected under 35 U.S.C. as being unpatentable over the applicant's admitted prior art as detailed above, and in further view of Kirson et al (USPN 6114970). Hereafter, "Kirson et al" will simply be referred to as "Kirson".

As detailed above the applicant's admitted prior art discloses that replacement stereo receivers can be controlled by remote controls. The applicant's admitted prior art also teaches that replacement were available with some voice recognition features.

However, the applicant's admitted prior art in view of Bush does not specifically disclose:

- that the remote signal is output from an existing local stereo control button positioned within the vehicle and adapted to control the originally installed stereo

Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle. The original equipment manufacturer (OEM) equipment includes steering wheel controls (16), and in-dash display (18), a door lock system (20), and other vehicle systems (24) (col. 3, lines 1-3). The gateway (26) enables signals originating from devices on the OEM bus (12) to be communicated to devices additional electronic devices on the ITS bus (14) and signals originating from the ITS bus (14) to be received on the OEM bus (12) (col. 3, lines 5-26). This connection of the original controls to peripheral devices reads on "at least one local vehicle stereo control device originally installed in the vehicle" and "so that the at least one local vehicle

Art Unit: 2644

stereo control device originally installed in the vehicle can be used to control the operation of the replacement stereo receiver via the stereo device".

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to incorporate the gateway and bus system of Kirson into the control scheme of the audio equipment system of the applicant's admitted prior art. The motivation behind such a modification would have been that the bus interface system of Kirson would have enabled the use of the original manufacturer's controls - as is taught by Kirson - for the audio system of the applicant's admitted prior art, while also expanding the range of devices that can be connected to the in-vehicle communications network. The teachings of Kirson also disclose a manner for uniquely identifying and addressing added peripherals that is not dependant upon the physical location of the added devices in the system. Such a modification would have provided separate set of input controls from those included on an replacement stereo receiver or through the voice command interface, ultimately enhancing the manners through which the respective appliances would have been potentially controlled.

Regarding **Claim 18**, the applicant discloses that handlebar stereo controls are often included on a motorcycle for the convenience of the rider (page 8, line '30 through page 9, line 5). In view of the disclosure of Kirson, it would have been obvious to incorporate an interface device of Kirson into the control scheme of any vehicle that can receive a replacement stereo receiver in order to retain utility

Art Unit: 2644

of these original controls. This reads on "the vehicle comprises a motorcycle and the at least one remote control signal comprises a signal from at least one switch positioned adjacent the handlebars of the motorcycle".

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ciluffo (USPN 6119088) discloses a universal, voice activated remote control for use with various entertainment electronic devices.

Pietraszak et al (USPN 5691710) discloses a self-learning universal remote control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Graham whose telephone number is (703) 308-6729. The examiner can normally be reached on Monday-Friday (7:30-4:30), excluding alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen, can be reached at (703) 305-4386. The fax number for the organization where this application or proceeding is assigned is 703-872-9314 for regular communications, and 703-872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Application/Control Number: 09/552,981

Page 15

Art Unit: 2644

AG

Andrew Graham
Examiner
A.U. 2644

ag
November 16, 2003


XU MEI
PRIMARY EXAMINER